

## REMARKS/ARGUMENTS

This paper is filed in response to the office action mailed in this case on March 28, 2007. Reconsideration of the application in light of the following amendments and remarks is respectfully requested. Applicants herein request a one-month extension of time and enclose the fee to make this paper timely filed.

The Examiner rejects pending claims 1-12 and 14-19 as being obvious under 35 USC 103(a) over Slocum (US 6,446,560) in view of Jenkins (US 6,755,136). Applicants respectfully traverse this rejection.

### Amendments to the claims:

As a first matter, Applicants note amendments to the listing of claims. Claims 1, 5, and 8-19 have been canceled. Claims 2, 6, and 7 have been amended. Claims 20-23 have been added and support for these amendments can be found in the specification. No new matter has been added. All claims are now directly or indirectly dependent from new independent claim 20.

Applicants have added new independent claim 20 to clarify the nature and scope of the present invention. Claim 20 recites limitations regarding the curved nature of the stairlift and the geometry of the rail. Support for these amendments can be found in the specification as originally filed. For example, the limitations for new independent claim 20 can be found as follows:

20. (New) A tubular rail for a curved stairlift, the angle of said rail when mounted on a stairway varying with respect to a horizontal plane, (*See* the specification as filed at page 11 last paragraph, *inter alia*) said rail comprising:

i) a cross-section having an internal surface and an external surface, said internal surface defining a single cavity within said rail; (*Id.*)

- ii) a major axis, and a minor axis perpendicular to said major axis, said major and minor axes being unequal and said cross-section being symmetrical about both of said major and said minor axes; (*Id.* at page 9 first and second full paragraphs, *inter alia*) and
- iii) the dimensions of said rail varying in the direction of at least one of said major and minor axes. (*Id.* at the fourth full paragraph on page 9 to the first full paragraph on page 11 and also in Figs. 1 and 2., *inter alia*)

Support for new dependent claims 21-23 can also be found throughout the specification and in particular in the last paragraph on page 11, and also in Figs. 1 and 2.

### **The claims are not obvious**

The Examiner has rejected claims 1-12 and 14-19 under 103(a) as being unpatentable over Slocum (US 6,446,560) in view of Jenkins (US 6,755,136). Applicants respectfully traverse this rejection and submit for the reasons outlined herein the claims as amended are in condition for allowance.

The Examiner cites Slocum as having a rail with the claimed cross-section and argues that to form the rail of Slocum without the septum (i.e. 203c shown in Fig. 5), would be obvious in view of the single cavity rail of Jenkins stairlift. Applicants disagree and submit that the combination of references is improper and is made in hindsight only after understanding the teachings provided by the present invention.

As taught in the present specification, in stairlift installations the rail must be formed very accurately and this high degree of accuracy must be maintained whenever the rail is bent, for example to follow a contour of a staircase. In particular, the rail must not only support heavy masses but must do so while maintaining extremely high positional accuracy of a carriage along the length and height of the rail. This is a particular problem in stairlifts with rails having helical bends (i.e. where the rail is bent both vertically and horizontally at one location). A small vertical inaccuracy over the height of the rail will be amplified at the level of a user seated in the carriage of the stairlift. In this event, when the carriage moves through a bend, the passenger will

be titled forward or rearward to an extent which causes discomfort and/or concern for safety.

The rail shown in Fig. 5 of Slocum is of similar overall form (i.e. a two-tube rail) to that described in Applicant's International Patent Application WO 02/064481. *See also* page 4 of the present specification as filed at the third paragraph. The problems inherent in this two-tube arrangement are discussed throughout the present specification as the present invention was designed to overcome these difficulties, among others. When forming a "curve" in a two-tube rail, each tube is bent separately (e.g. at different radii). These bent tubes are then attached together forming a final rail assembly. The present invention provides a novel stairlift installation having single cavity rail that can be bent once at each required bend thereby eliminating the previously required two bends (one for each tube), the subsequent attachment process, and any installer error that occurs with these additional steps.

The conveyor of Slocum is not concerned with the same problems that confront the stairlift designer. In Slocum, the loads being conveyed are light and, while Slocum is concerned with addressing pitch of the carriage in the direction of travel, **there is nothing in Slocum to suggest that it is concerned with carefully controlling rotation of the carriage about the rail.** There is thus no reason why one skilled in the art of stairlifts would chose Slocum as a starting point to solve the problems in stairlift installations that are rectified by the present invention.

The Examiner cites Jenkins as providing a stairlift rail having a "single cavity". Jenkins rail can indeed be a single cavity, however Jenkins does not disclose that the rail **can be bent** to any marked extent as required by the present claims. The claims of the present application are directed to **curved** stairlifts. Curved stairlifts include, by definition, rails having a bend and thus must be bent to their final shape. Jenkins stairlift rail is for a **straight stairlift** and does not disclose or provide solutions to problems associated when the rail is bent to follow the contours of a curved staircase.

The present invention provides a rail for a curved stairlift that ensures high positional accuracy of a carriage along the entire length of a curved stairlift rail as it follows the contours of a staircase. The inventors have found that this can be accomplished using the stairlift rail as claimed. Namely, the single cavity rail as claimed allows for the rail to be bent to its final

installed form while maintaining the positional accuracy of a carriage traveling along its external surface. The combination of Slocum and Jenkins fails to render the claims obvious.

For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



Marina T. Larson, Ph.D  
Reg. No. 32,038

Ryan E. Anderson  
Reg. No. 51,405

Attorneys for Applicant(s)  
(970) 262 1800